

0.2 to 12 atom % of at least one of vanadium and niobium,
wherein the balance being zirconium and unavoidable impurities.

Claim 9 (new): A hydrogen permeable membrane comprising a non-crystalline nickel-zirconium alloy composed of:

44 to 75 atom % of nickel;

0.2 to 12 atom % of niobium; and

0.1 to 10 atom % of phosphorus; wherein the combined amount of niobium and phosphorus is not more than 18 atom %,

wherein the balance being zirconium and unavoidable impurities.